IN THE UNITED STATES DISTRICT COURT
FOR THE WESTERN DISTRICT OF TEXAS
WACO DIVISION

PARUS HOLDINGS INC., Plaintiff, v. SAMSUNG ELECTRONICS CO., LTD. and SAMSUNG ELECTRONICS AMERICA, INC., Defendants.	)	Civil Action No. 6:21-cv-01073 **JURY TRIAL DEMANDED**

PARUS HOLDING INC.'S COMPLAINT FOR PATENT INFRINGEMENT

Plaintiff Parus Holdings Inc. ("Parus" or "Plaintiff") for its Complaint for Patent infringement ("Amended Complaint") against Samsung Electronics Co., Ltd and Samsung Electronics America, Inc. (collectively "Samsung" or "Defendants"), hereby alleges as follows:

THE PARTIES

1. Plaintiff Parus Holdings Inc. is a Delaware corporation having its principal place of business at 3000 Lakeside Drive, Suite 110S, Bannockburn, IL 60015.

2. Parus is a privately-held company founded in 1997 that offers for sale and sells a number of voice-driven technology and speech search solutions to allow customers to spend less time managing their communication channels by allowing customers to search the Internet with their voice and receive audible search results back. These products include ParusSpeak™ Interactive Voice Response (IVR), ParusOne™ Unified Communications, ParusOffice™ Cloud PBX, and ParusMobile™ Mobile Applications. *See* https://www.parus.ai/products/. Parus's brands include Parus, Obai, Webley, Webley MD, and Parus Interactive. Parus's voice-enabled

search technology is in competition with Samsung Products implementing Google Assistant and/or Samsung Bixby.

3. Parus is the owner by assignment of U.S. Patent No. 6,721,705 ("the '705 Patent"), U.S. Patent No. 7,386,455 ("the '455 Patent"), and U.S. Patent No. 8,185,402 ("the '402 Patent") (collectively, "the Asserted Patents").

4. Defendant Samsung Electronics Co., Ltd is a corporation organized and existing under the laws of South Korea, with a principal place of business located at 129, Samsung-ro, Yeongtong-gu, Suwon-si, Gyeonggi-do, Korea. On information and belief, Samsung Electronics Co., Ltd is the entity that manufactures the Samsung-branded products sold in the United States, including the accused products in this case. On information and belief, in addition to making the products, Samsung Electronics Co., Ltd is responsible for research and development, product design, and sourcing of components.

5. Defendant Samsung Electronics America, Inc. is a wholly owned subsidiary corporation of Samsung Electronics Co. Ltd. organized and existing under the laws of New York with a principal place of business at 85 Challenger Road, Ridgefield Park, New Jersey 07660.

6. Samsung Electronics America, Inc. has offices and/or other facilities in Texas at least at 12100 Samsung Blvd, Austin, Texas 78754; 2800 Wells Branch Pkwy, Austin, TX 78728; 1301 East Lookout Drive, Richardson, Texas 75082; and 6635 Declaration Drive, Plano, TX 75023.

7. Samsung Electronics America, Inc. has maintained regular and established places of business at 12100 Samsung Blvd, Austin, Texas 78754 and 2800 Wells Branch Pkwy, Austin, TX 78728.

8. Samsung Electronics America, Inc. is registered to do business in Texas.

9. Samsung has placed or contributed to placing infringing products like the Samsung Galaxy Note 9, and the Samsung SmartThings devices into the stream of commerce via an established distribution channel knowing or understanding that such products would be sold and used in the United States, including in the Western District of Texas. On information and belief, Samsung also has derived substantial revenues from infringing acts in the Western District of Texas, including from the sale and use of infringing products like the Samsung Galaxy Note 9 and the Samsung SmartThings devices.

10. Samsung had constructive notice of the Asserted Patents based on Parus's marking at least as of 2014.

JURISDICTION AND VENUE

11. This is an action for patent infringement arising under the patent laws of the United States, Title 35 of the United States Code. Accordingly, this Court has subject matter jurisdiction pursuant to 28 U.S.C. §§ 1331 and 1338(a).

12. This Court has specific personal jurisdiction over Defendants at least in part because Defendants conduct business in this Judicial District. Parus's causes of action arise, at least in part, from Defendants' contacts with and activities in the State of Texas and this Judicial District. Upon information and belief, each Defendant has committed acts of infringement within the State of Texas and this Judicial District by, *inter alia*, directly and/or indirectly using, selling, offering to sell, or importing products that infringe one or more claims of the '705 Patent, the '455 Patent, and/or the '402 Patent.

13. Defendants have committed acts within this District giving rise to this action, and have established sufficient minimum contacts with the State of Texas such that the exercise of jurisdiction would not offend traditional notions of fair play and substantial justice.

14. Venue is proper in this Judicial District pursuant to 28 U.S.C. §§ 1391(b), (c), and 1400(d). Venue for Defendant Samsung Electronics Co., Ltd., a foreign corporation, is proper in every judicial district in the U.S., including this one. Venue is proper for Samsung Electronics America, Inc. because Samsung Electronics America, Inc. (1) has a regular and established place of business in this Judicial District, and (2) has committed and continue to commit acts of patent infringement in this Judicial District by, *inter alia*, directly and/or indirectly using, selling, offering to sell, or importing products that infringe one or more claims of the '705 Patent and/or the '402 Patent.

BACKGROUND

15. Founded in 1997, Parus provides innovative solutions to businesses and individuals, enabling thousands of professionals to stay in touch and in control of their communications. Its patented, voice-driven applications, deep understanding of the needs and challenges of the market, and passion for unsurpassed customer service have kept Parus at the forefront of the unified communications industry for more than twenty years. Parus is a pioneer in this space, offering voice-driven unified communications and voice assistant solutions, including messaging, voice search, collaboration, and real-time communications for mobile communities and businesses.

16. On information and belief, Samsung Electronics was founded in 1969 and currently offers a variety of products, including, *inter alia*, software apps and services (including Bixby, the intelligent assistant, the Samsung browser, Samsung Pay, and a host of applications available in the Galaxy Store), hardware (including smartphones, tablets, watches, mobile accessories, mobile audio, tv & home theater, computing, monitors, memory & storage, home appliances, and smart home products), and enterprise services. *See, e.g.,* https://www.samsung.com/us/about-us/our-business/, https://www.samsung.com/us/apps/.

Samsung Group reported $55.84 billion in revenue in the first quarter of 2021. *See* http://news.samsung.com/global/samsung-electronics-announces-first-quarter-2021-results.

17. Samsung has incorporated Parus's technology into its products and offerings without authorization.

THE ASSERTED PATENTS

18. The '705 Patent, the '455 Patent, and the '402 Patent are related and share a specification. The '705 Patent relates to "robust and highly reliable" systems for users to search the internet using voice-enabled devices. '705 Patent at 1:15–16.[1] At the time of the invention, users were limited in the devices they could use to conduct web searches (*i.e.*, conventional computers, PDAs, or web-phones/web-pagers). As explained in the specification, these devices had numerous limitations, including (i) the form of the devices, their portability, and their ability to connect to the Internet; (ii) the compatibility of the devices with particular web site designs; and (iii) the devices' responsiveness to rapid changes in website content (e.g., "[t]he design of the web site may change, the information required by the web site in order to perform searches may change, and the method of reporting search results may change"). *Id*. at 1:25–2:52. Therefore, there was a need for a system that could "detect modifications to web sites and adapt to such changes in order to quickly and accurately provide the information requested by a user through a voice enabled device." *Id*. at 2:32–36.

19. Voice-enabled searches of the Internet present several unique technological hurdles. For example, unlike regular browser-based or application-based searches, a voice-enabled device must limit its results because a user simply cannot listen to an entire page worth of search results. *See id.* at 2:36–52. Voice users are especially sensitive to latency and expect

[1] For clarity, these citations are to the '705 Patent specification, but similar disclosures are present for the '402 Patent as well.

immediate responses to their search requests. *Id.* Indeed, rapid responses are an essential feature of a voice system's desirability and usability. *Id*. And "[a] system that introduces too much delay between the time a user makes a request and the time of response will not be tolerated by users and will lose its usefulness." *Id*. at 2:43–46.

20. The inventors of the Asserted Patents were thus presented with a technical problem: how to quickly provide complete, timely, and relevant web site search results to voice-enabled devices, accounting for the rapidly changing nature of web sites and Internet applications. '705 Patent at 2:32–26, 17:9–15. The inventors thus developed specific and concrete ways of solving the technical problems presented by voice-based internet searching, developing a robust, innovative system to provide quick, reliable results to the voice-based user that can access web sites in a ranked order in response to a voice request, and discover new web sites using, *inter alia*, content extraction, pinging, polling, and ranking. *See, e.g.*, *id.* at 6:58–7:30, 17:48–18:4, 19:3–21.

21. The claims of these patents vary in scope, and no single claim is representative of all the Asserted Patents or claims. For example, the '705 Patent concerns how to determine from which website to retrieve information in response to a speech command from a pre-selected web site using a specific polling and ranking mechanism. *See, e.g.*, '705 Patent at 20:3–17. The '705 patent further claims a "content extraction agent," a "content descriptor," and a "content fetcher." *See, e.g.*, *id.* at 19:60–67. The specification describes and gives descriptions of these features, for example, describing a "content extraction agent" as "allow[ing] the web browsing server 102 to properly format requests and read responses provided by the web site 114;" a "content descriptor" as "direct[ing] the extraction agent where to extract data from the accessed web page

and how to format a response to the user utilizing that data;" and a "content fetcher" as "retriev[ing] information from a web site." *Id.* at 7:2–28, 9:35–37.

22. For another example, the '455 Patent concerns controlling online functionality and items in a remote system using audio commands and grammar. *See, e.g.*, '455 Patent at 19:40–42. The patent further claims using polling mechanisms to determine operability. *See, e.g.*, *id.* at 16:42–65, 20:548–51.

23. Parus expects that at least some terms as used in the claims will be subject to construction in this case based on both the intrinsic record and, to the extent necessary, extrinsic evidence, including testimony from expert witnesses.

SAMSUNG'S INFRINGING PRODUCTS AND SERVICES

24. Upon information and belief, Samsung has infringed and continues to infringe one or more claims of the Asserted Patents, as shown below, acting through the Samsung Galaxy devices and Samsung SmartThings devices (collectively, "the Samsung Accused Products"). On information and belief, Samsung has released different versions of the Samsung Galaxy smartphones and tablets, but on information and belief, each of these products infringed through use of Google Assistant and/or Bixby at least since Google Assistant's release in 2016 and Samsung Bixby's release in 2017.[2][3]

[2] https://www.techrepublic.com/article/google-assistant-the-smart-persons-guide/.
[3] https://techcrunch.com/2017/06/16/samsungs-bixby-voice-assistant-is-finally-coming-to-the-u-s-but-only-as-a-preview/?guccounter=1&guce_referrer=aHR0cHM6Ly93d3cuZ29vZ2xlLmNvbS8&guce_referrer_sig=AQAAACGT1XWy_CT6dyjt8qYBlJQ_SCnxPjz29qbPYT60uobpKtSKfuCgDI9n6lkYEtFqBNXhdwHfBnC5O8HvuAkcWfQXRkJdfYHy8K_Mp6iLW_nm2PLHiKXIhunBoZ_bKbwqr6NAuMV5lt4p5L0P6HShkOYLivJ9fFaznNkIZNj8fjB0

COUNT I

SAMSUNG'S INFRINGEMENT OF U.S. PATENT NO. 6,721,705

25. Parus restates and incorporates by reference all of the allegations made in the preceding paragraphs as though fully set forth herein.

26. Parus is the owner, by assignment, of the '705 Patent. A true copy of the '705 Patent granted by the U.S. Patent & Trademark Office is attached as Exhibit 1.

27. Defendant Samsung has directly infringed, and continues to directly infringe, literally or under the doctrine of equivalents, at least independent claim 1 of Parus's '705 Patent by making, using, selling, and/or offering for sale its smartphone products implementing the Google Android operating system, including Google Assistant, and/or Samsung's Bixby in the United States, in violation of 35 U.S.C. § 271(a).

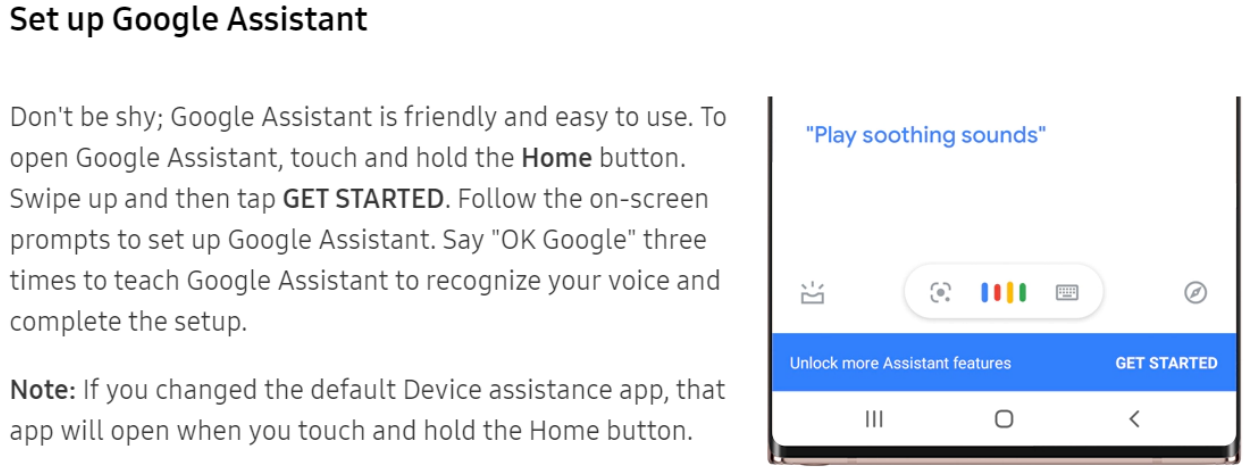
28. Upon filing of the complaint or shortly thereafter, Defendant Samsung has knowledge of the '705 Patent.

29. Various Samsung products with Google Assistant and/or Samsung Bixby made or sold by Samsung directly infringe at least independent claim 1 of the '705 Patent. Those Samsung products include at least the Samsung Galaxy Note 9 and other Samsung products that incorporate the Google Assistant and/or Samsung Bixby ("Samsung Accused Products").

30. The Samsung Accused Products in conjunction with Google Assistant and/or Samsung Bixby form an internet voice browsing system for gathering information from Web sites on the Internet. The following exemplary documents provide support to demonstrate how the Samsung Accused Products in conjunction with Google Assistant and/or Bixby practice at least claim 1 of the '705 Patent: Andrew Nusca, *How voice recognition will change the world* (Nov. 4, 2011), *available at* https://www.zdnet.com/article/how-voice-recognition-will-change-

the-world/, Gene Munster, Will Thompson, *Annual Digital Assistant IQ Test – Siri, Google Assistant, Alexa, Cortana* (Jul. 25, 2018), *available at* https://loupventures.com/annual-digital-assistant-iq-test-siri -google-assistant-alexa-cortana/, Extending the assistant (Jan. 29, 2019), *available at* https://developers.google.com/actions/extending-the-assistant, Voice Browsing (Jan. 29, 2019), *available at* https://www.w3.org/standards/webofdevices/voice, How Search organizes information (Jan. 29, 2019), *available at* https://www.google.com/search/howsearchworks/crawling-indexing/.

31. Google Assistant and/or Samsung Bixby is built-in the Samsung Accused Products including the Samsung Galaxy Note 9. *See, e.g.*, https://www.samsung.com/us/mobile/galaxy-note9/specs/; https://support.google.com/pixelphone/answer/7157629?hl=en. Samsung provides technical support for the Google Assistant on its websites instructing users, for example, how to use Google Assistant on a voice-enabled device in such a manner that infringes the asserted patents. *See, e.g.*, https://www.samsung.com/us/support/answer/ANS00077672/.

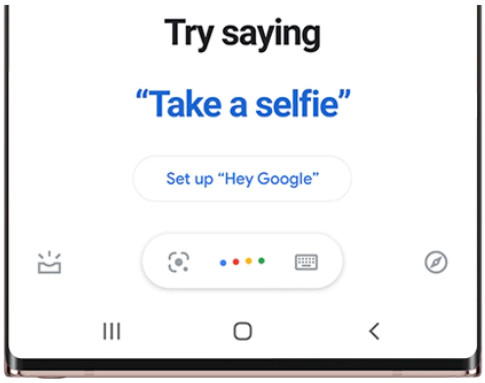


See, e.g., https://www.samsung.com/us/support/answer/ANS00077672/.

Use Google Assistant

Now that the ice has been broken, Google Assistant will help you whenever you want. To open Google Assistant, touch and hold **Home**. Google Assistant will begin listening to you right away.

But if needed, you can tap the **Speak** icon to interact with Google Assistant. Ask "What can you do?"and then swipe down to see a list of things Google Assistant can help with, like adjusting your smart home features.



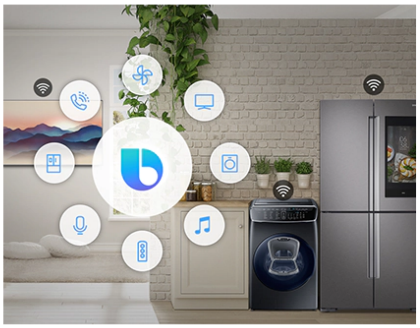
See, e.g., https://www.samsung.com/us/support/answer/ANS00077672/.

32. Similarly, Samsung provides technical support for Bixby on its websites instructing users, for example, how to use Bixby on a voice-enabled device in such a manner that infringes the asserted patents. *See, e.g.*, https://www.samsung.com/us/support/answer/ANS00080453/ ("Interact with Bixby through voice or text"); https://www.samsung.com/us/support/answer/ANS00080454/ ("Frequently Asked Questions About Bixby").

Why Bixby should be your default AI assistant

As amazing as Google Assistant and the other AI assistants are, **Bixby** is the only one that can access Samsung-exclusive services. For example, Bixby can control your devices in SmartThings and even **make purchases in Samsung Pay**. It can connect to your **Spotify account** to make finding songs easier.

And don't forget Bixby's key functions. **Bixby Reminders** helps you stay on track of your schedule. There's also **Bixby Vision** for browsing, shopping, and doing so much more.

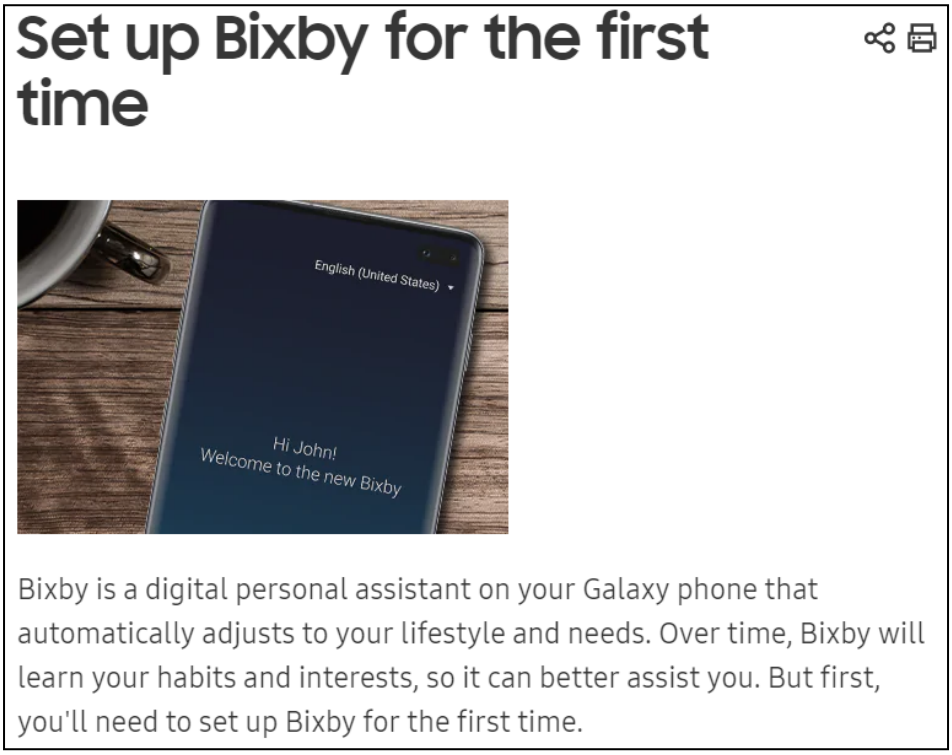


Even if the other AI assistants have some similar features, they aren't integrated with your phone the same way Bixby is.

See, e.g., https://www.samsung.com/us/support/answer/ANS00077672/.

33. Some of the Samsung Accused Products utilize the virtual assistant Bixby. For example, the Samsung Galaxy Note 9 comes with Bixby pre-loaded. *See e.g.,*

https://www.samsung.com/us/mobile/galaxy-note9/specs/. Samsung also includes a page that gives instructions for setting up and using Samsung Bixby.



See, e.g., https://www.samsung.com/us/support/answer/ANS00076739/.

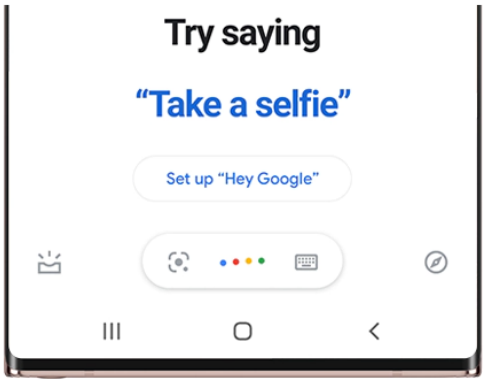
34. Bixby operates in a manner similar to Google Assistant. Analysis of Bixby will not be duplicated where the analysis of Google Assistant appears.

35. The Samsung Accused Products in conjunction with Google Assistant are also systems for retrieving information from pre-selected web sites by uttering speech commands into a voice enabled device. For example, Samsung touts the Google Assistant on its web pages.

Use Google Assistant

Now that the ice has been broken, Google Assistant will help you whenever you want. To open Google Assistant, touch and hold **Home**. Google Assistant will begin listening to you right away.

But if needed, you can tap the **Speak** icon to interact with Google Assistant. Ask "What can you do?"and then swipe down to see a list of things Google Assistant can help with, like adjusting your smart home features.



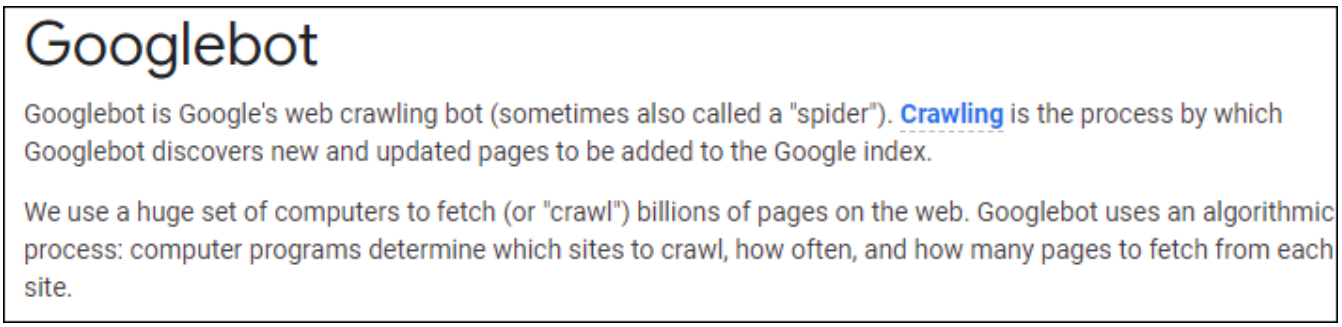
See, e.g., https://www.samsung.com/us/support/answer/ANS00077672/.

36. The Samsung Accused Products in conjunction with Google Assistant include at least one CPU-based media server. For example, the Samsung Galaxy Note 9 includes an Octa-Core processor. *See e.g.,* https://www.samsung.com/us/mobile/galaxy-note9/specs/.

37. The Samsung Accused Products in conjunction with Google Assistant include the media server having at least a speech recognition engine, a speech synthesis engine, an interactive voice response application, a call processing system, and telephony hardware, where the media server is configured to receive a speech command from a user and to convert the speech command into a digital data message and is also configured to receive a speech command from a user and to convert the speech command into a digital data message.

38. For example, Google indicates that the Samsung Accused Products in conjunction with Google Assistant will "[g]et real-time answers including the latest on weather, traffic, finance, or sports" and control your home all with your voice. *See e.g.*, https://assistant.google.com/platforms/phones/#get-answers; https://assistant.google.com/platforms/phones/#control-your-home.

39. Google Assistant on the Samsung Accused Products retrieves information from pre-selected websites that have already been crawled by the Googlebot.

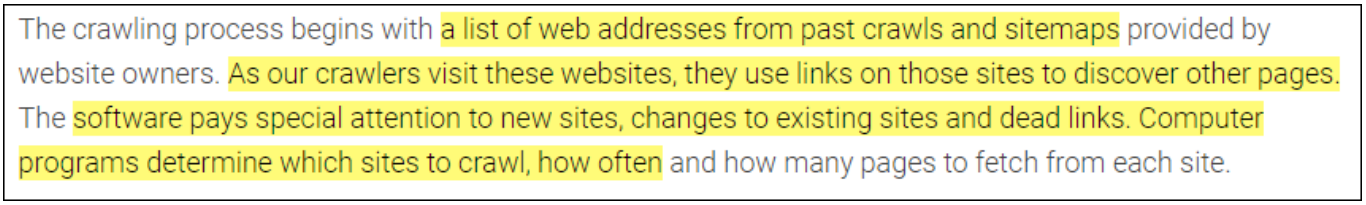


Googlebot

Googlebot is Google's web crawling bot (sometimes also called a "spider"). Crawling is the process by which Googlebot discovers new and updated pages to be added to the Google index.

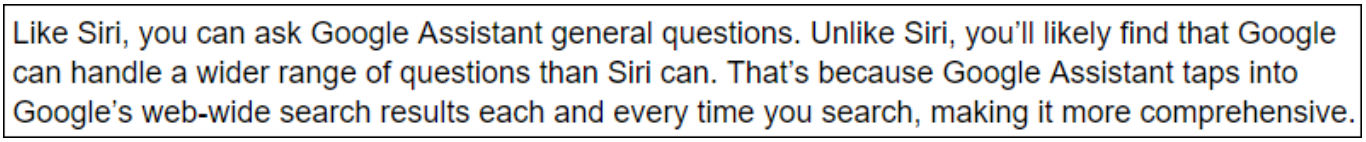
We use a huge set of computers to fetch (or "crawl") billions of pages on the web. Googlebot uses an algorithmic process: computer programs determine which sites to crawl, how often, and how many pages to fetch from each site.

See, e.g., https://support.google.com/webmasters/answer/182072.



The crawling process begins with a list of web addresses from past crawls and sitemaps provided by website owners. As our crawlers visit these websites, they use links on those sites to discover other pages. The software pays special attention to new sites, changes to existing sites and dead links. Computer programs determine which sites to crawl, how often and how many pages to fetch from each site.

See, e.g., https://www.google.com/search/howsearchworks/crawling-indexing/.



Like Siri, you can ask Google Assistant general questions. Unlike Siri, you'll likely find that Google can handle a wider range of questions than Siri can. That's because Google Assistant taps into Google's web-wide search results each and every time you search, making it more comprehensive.

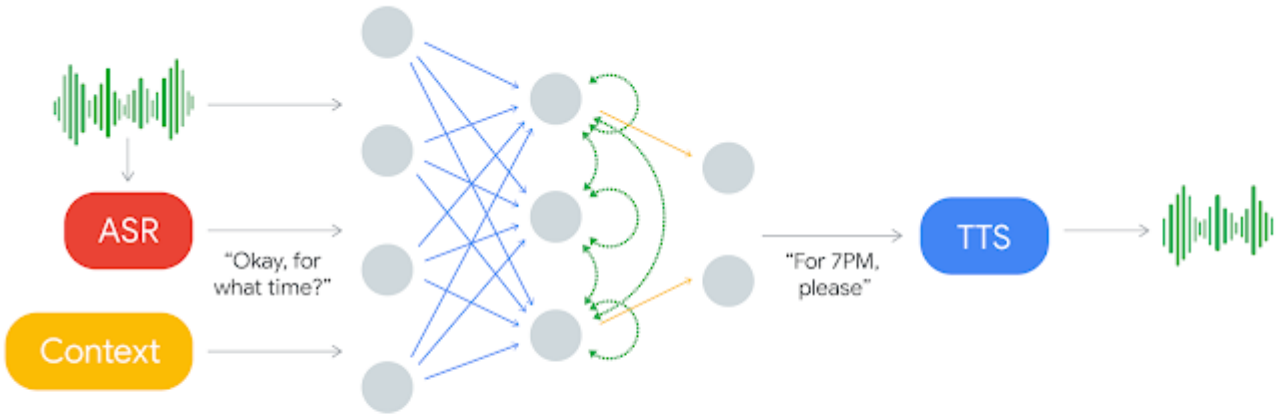
See, e.g., https://searchengineland.com/google-assistant-guide-270312.

40. Further, the Samsung Accused Products in conjunction with Google Assistant include a speech recognition engine, a speech synthesis engine, and an interactive voice response application. For example, the Samsung Accused Products in conjunction with Google Assistant allow a user to talk through the device to send commands to the cloud. The Samsung Accused Products in conjunction with Google Assistant can handle voice commands on the device itself or with help from the cloud. *See e.g.*, https://blog.google/products/pixel/pixel-3-and-device-ai-putting-superpowers-your-pocket/.

For users, Google Duplex is making supported tasks easier. Instead of making a phone call, the user simply interacts with the Google Assistant, and the call happens completely in the background without any user involvement.

A user asks the Google Assistant for an appointment, which the Assistant then schedules by having Duplex call the business.

See e.g., https://ai.googleblog.com/2018/05/duplex-ai-system-for-natural-conversation.html.



Incoming sound is processed through an ASR system. This produces text that is analyzed with context data and other inputs to produce a response text that is read aloud through the TTS system.

See id.

41. Additionally, the Samsung Accused Products in conjunction with Google Assistant include call processing systems and telephony hardware, including responding to messages. *See, e.g.*,

https://play.google.com/store/apps/details?id=com.google.android.apps.googleassistant&hl=en_US&gl=US.

42. The Samsung Accused Products in conjunction with Google Assistant include a media server configured to receive a speech command from a user and to convert said speech command into a digital data message.

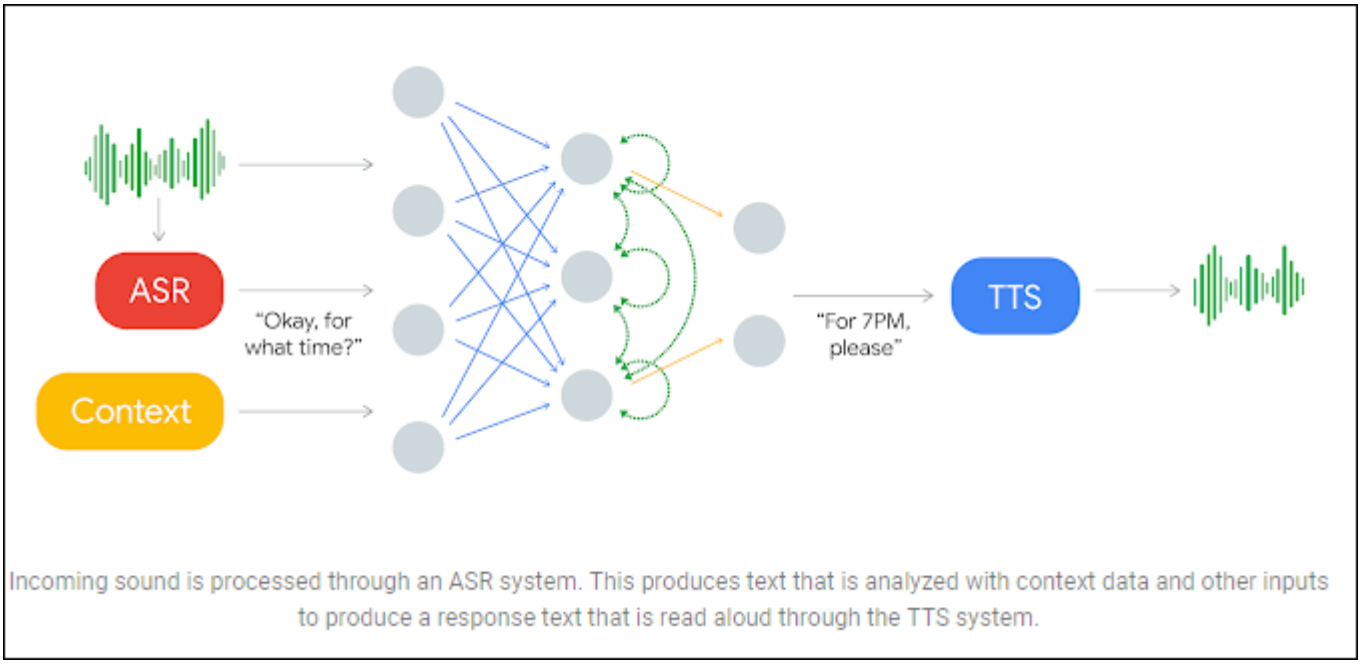
43. For example, the Samsung Accused Products in conjunction with Google Assistant allow a user to talk through the device to send commands to the cloud. *See e.g.*, https://blog.google/products/pixel/pixel-3-and-device-ai-putting-superpowers-your-pocket/.

> Bringing the best AI experiences to Pixel 3 involved some re-thinking from the ground up. Our phones are powerful computers with multiple sensors which enable new helpful and secure experiences when data is processed on your device. These AI-powered features can work offline and don't require a network connection. And they can keep data on device, private to you. With Pixel 3, we complement our traditional approach to AI, where machine learning and data processing is done in the cloud, with reliable, accessible AI on device, when you're on the go.

See e.g., https://blog.google/products/pixel/pixel-3-and-device-ai-putting-superpowers-your-pocket/.

> For users, Google Duplex is making supported tasks easier. Instead of making a phone call, the user simply interacts with the Google Assistant, and the call happens completely in the background without any user involvement.
>
> 
>
>
> A user asks the Google Assistant for an appointment, which the Assistant then schedules by having Duplex call the business.

See e.g., https://ai.googleblog.com/2018/05/duplex-ai-system-for-natural-conversation.html.



See id.

44. The Samsung Accused Products in conjunction with Google Assistant include at least a database containing a list of web sites stored on magnetic media. *See, e.g.*, https://developers.google.com/search/docs/beginner/how-search-works (discussing crawling and indexing); https://www.google.com/search/howsearchworks/crawling-indexing.

45. The Samsung Accused Products in conjunction with Google Assistant include a rank assigned to each one of the web sites and stored in the database. *See, e.g.*, https://moz.com/blog/how-to-rank-on-google-home (discussing "ranking for voice," "Google Home is a single-result search device, and featured snippets were designed for exactly this purpose."); https://www.google.com/search/howsearchworks/algorithms/; https://www.google.com/search/howsearchworks/crawling-indexing; *see also* https://en.wikipedia.org/wiki/Google_data_centers. In particular, Google Assistant determines ranks for each website to determine from what website to extract responses. *See, e.g.*,

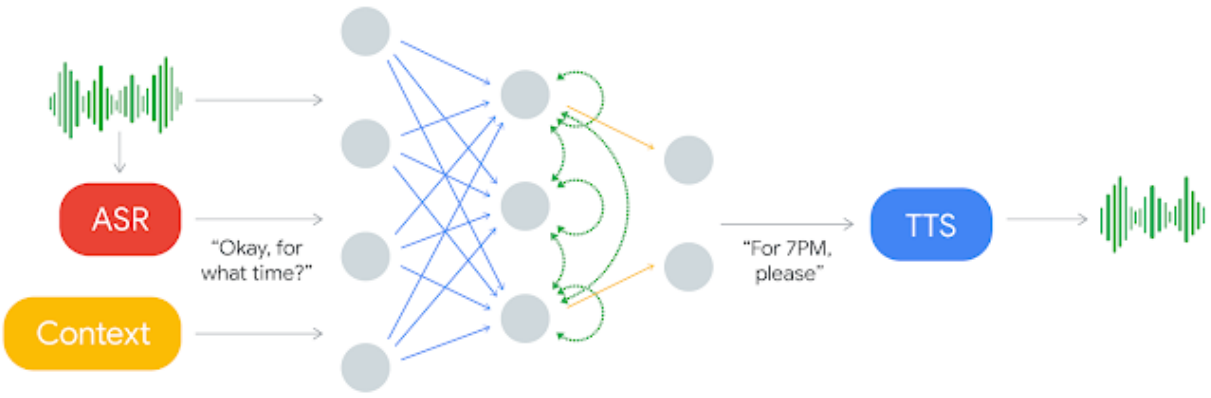
https://developers.google.com/assistant/howassistantworks/responses; https://pedestalsearch.com/seo-rank-google-digital-assistant.

46. Further, the Samsung Accused Products in conjunction with Google Assistant include a CPU-based web browsing server that includes at least a content extraction agent, a content fetcher, a polling and ranking agent, and a content descriptor file. The web browsing servers of the Samsung Accused Products in conjunction with Google Assistant are configured to receive a digital data message from the media server and configured to access one of the web sites having the highest rank and to retrieve information from at least one of the web sites. *See, e.g.*, https://developers.google.com/assistant/howassistantworks/responses; https://pedestalsearch.com/seo-rank-google-digital-assistant. *See also* https://moz.com/blog/how-to-rank-on-google-home ("Here's a question that should have a factual answer, but, for whatever reason, that answer is not available in Google's Knowledge Graph. So, the answer is extracted from Wikipedia and presented as a featured snippet. It's interesting to note that the answer (twelve) is pulled out of the paragraph and presented on its own...").

47. The Samsung Accused Products in conjunction with Google Assistant include a media server configured to generate an audio message representing the information and to transmit the audio message to a user, as discussed above. For example, the Samsung Galaxy Note 9 in conjunction with Google Assistant can handle voice commands on the devices themselves or with help from the cloud and produce an audio response.

> Bringing the best AI experiences to Pixel 3 involved some re-thinking from the ground up. Our phones are powerful computers with multiple sensors which enable new helpful and secure experiences when data is processed on your device. These AI-powered features can work offline and don't require a network connection. And they can keep data on device, private to you. With Pixel 3, we complement our traditional approach to AI, where machine learning and data processing is done in the cloud, with reliable, accessible AI on device, when you're on the go.

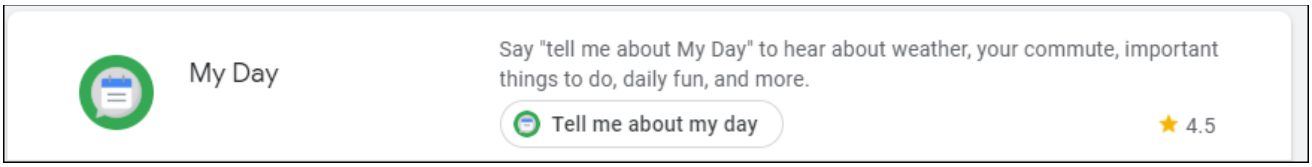
See, e.g., https://blog.google/products/pixel/pixel-3-and-device-ai-putting-superpowers-your-pocket/.



Incoming sound is processed through an ASR system. This produces text that is analyzed with context data and other inputs to produce a response text that is read aloud through the TTS system.

See, e.g., https://ai.googleblog.com/2018/05/duplex-ai-system-for-natural-conversation.html.

48. For example, the Samsung Accused Products in conjunction with Google Assistant can handle voice commands and generate an audio message. *See, e.g.*, https://blog.google/products/pixel/pixel-3-and-device-ai-putting-superpowers-your-pocket/; *see also* https://ai.googleblog.com/2018/05/duplex-ai-system-for-natural-conversation.html. The Samsung Accused Products in conjunction with Google Assistant includes said speech synthesis device configured to produce an audio message containing.



See, e.g., https://assistant.google.com/explore?hl=en_us; *see also* https://moz.com/blog/how-to-rank-on-google-home ("Google Home starts with the short answer: 'Twelve'. Then, it moves on to attribution: 'According to Wikipedia...'." "In this case, we get attribution first ('According to Universe Today...'), followed by the full snippet. Even though this snippet is fairly long, Google Home chooses to read the full contents.").

49. The Samsung Accused Products in conjunction with Google Assistant include at least a polling mechanism configured to periodically send a polling digital data message to each one of the web sites and to receive a response, such that each web site becomes a polled web site. The polling mechanism in each of the Samsung Accused Products is configured to decrease the rank of the polled web site if no response is received from the polled web site and is also configured to decrease the rank of the polled web site if an unexpected response is received from the polled web site. The polling mechanism in each of the Samsung Accused Products is also configured to decrease the rank of the polled web site if a response time of the polled web site is longer than a second response time of a second polled web site.

50. For example, the Samsung Accused Products in conjunction with Google Assistant use a wide variety of polling mechanisms to determine the quality of a webpage and to change the rank of the site, including using polling digital data message and whether a response is received from a polled web site. *See, e.g.*, https://developers.google.com/search/docs/advanced/guidelines/cloaking; https://stackoverflow.com/questions/1878364/how-does-google-know-you-are-cloaking;

https://www.google.com/search/howsearchworks/algorithms/ (Quality of content); https://developers.google.com/search/docs/advanced/guidelines/webmaster-guidelines.

51. Parus has been damaged by the infringement of one or more claims of the '705 Patent by Samsung. Parus is entitled to recover from Google the damages sustained by Parus as a result of Samsung's wrongful acts.

COUNT II

SAMSUNG'S INFRINGEMENT OF U.S. PATENT NO. 7,386,455

52. Parus restates and incorporates by reference all of the allegations made in the preceding paragraphs as though fully set forth herein.

53. Parus is the owner, by assignment, of the '455 Patent. A true copy of the '455 Patent granted by the U.S. Patent & Trademark Office is attached as Exhibit 2.

54. Samsung has directly infringed, and is continuing to directly infringe, literally or under the doctrine of equivalents, at least independent claim 1 of the '455 Patent by making, using, selling, and/or offering for sale Samsung's SmartThings technology in conjunction with Bixby ("SmartThings Accused Products") in violation of 35 U.S.C. § 271(a).

55. Upon filing of the complaint or shortly thereafter, Samsung has knowledge of the '455 Patent.

56. The Samsung SmartThings Accused Products in conjunction with Bixby perform a method for controlling at least one remote system by uttering speech commands into a voice-enabled device. For example, the SmartThings Platform "encompasses all of the components required to execute the functions and capabilities of the SmartThings ecosystem" and "includes executing a user's request, enabling device and cloud-to-cloud communication, running Automations, monitoring events in a user's home and in the SmartThings Cloud, and more."

See, e.g., https://developer-preview.smartthings.com/docs/getting-started/architecture-of-smartthings.

57. Further, one can control Samsung appliances/devices or a 3rd party appliance/device that is integrated with Samsung's SmartThings technology with Bixby.

See, e.g., https://www.samsung.com/us/explore/bixby/.

See, e.g., https://www.samsung.com/us/explore/bixby/.

See, e.g., https://news.samsung.com/us/powered-bixby-smartthings-samsung-unveils-intelligent-connected-home/.

> Samsung's "Do What You Can't" mantra was evident to visitors walking through Samsung City, the company's interactive booth at CES 2018. In the Home District experience, the company's vision for a more connected, seamless, lifestyle came to life with Samsung's intelligent assistant, Bixby, which lives in more than just mobile devices — making it easier for consumers to control so many things in their homes and harness the Internet of Things (IoT) to simplify their lives.

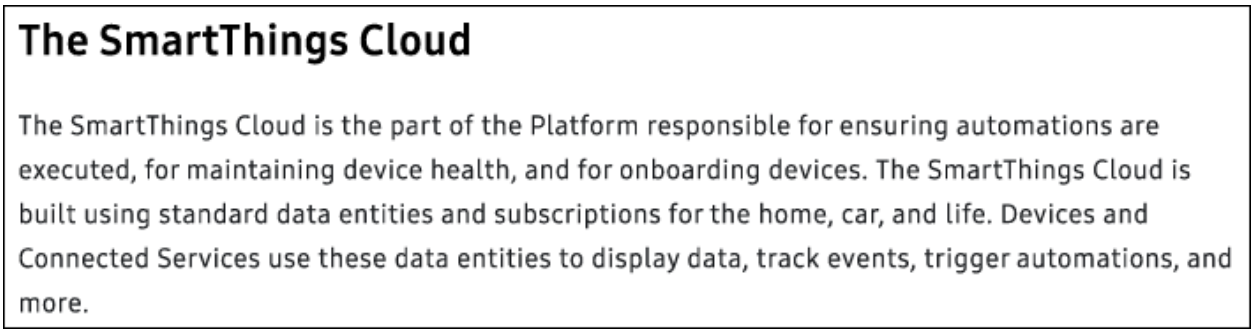
See, e.g., https://news.samsung.com/us/powered-bixby-smartthings-samsung-unveils-intelligent-connected-home/.

See, e.g., https://www.samsung.com/us/explore/bixby/.

58. In providing the SmartThings Accused Products in conjunction with Bixby, Samsung provides a computer operatively connected to the internet and further to at least one speaker-independent speech recognition engine and to at least one speech synthesis engine. For example, there is a computing element in any of the SmartThings devices that are operatively connected to the Internet, as well as in Bixby's cloud-based server architecture with speech recognition and synthesis technologies.

- **Cloud Connected Device** - Devices that communicate with the SmartThings Cloud through a third-party cloud. This includes SmartThings Schema and select products that connect using a SmartApp (For information on SmartThings Schema and SmartApps, see PLACEHOLDER).
- **Direct Connected Device** - Devices that connect directly to the SmartThings Cloud via WiFi. This includes Samsung Appliances, products from third-party OEMs using protocols such as OCF and MQTT, and more.
- **Mobile Connected Device** – Devices that communicate with the SmartThings Platform via a mobile device. This typically includes Bluetooth products that connect via your mobile device, such as wearables and headphones.
- **Hub Connected Device** – Devices that connect directly to a SmartThings Hub to communicate with the SmartThings Platform. This typically includes Zigbee, Z-Wave, and Bluetooth products.
- **Hub** - A Hub connects to the SmartThings Cloud and provides Platform connectivity for Hub Connected Devices.

See, e.g., https://developer-preview.smartthings.com/docs/getting-started/architecture-of-smartthings.



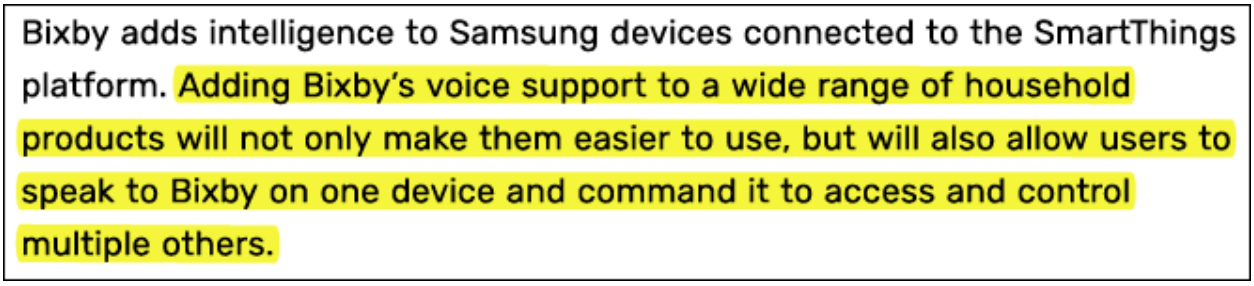
The SmartThings Cloud

The SmartThings Cloud is the part of the Platform responsible for ensuring automations are executed, for maintaining device health, and for onboarding devices. The SmartThings Cloud is built using standard data entities and subscriptions for the home, car, and life. Devices and Connected Services use these data entities to display data, track events, trigger automations, and more.

See, e.g., https://developer-preview.smartthings.com/docs/getting-started/architecture-of-smartthings.

59. Each device in the SmartThings ecosystem includes a computer. *See, e.g.*, https://samsung.com/us/mobile/galaxy-s20-5g/specs/.

60. Further, Bixby includes a speaker-independent speech recognition engine and a speech synthesis engine.

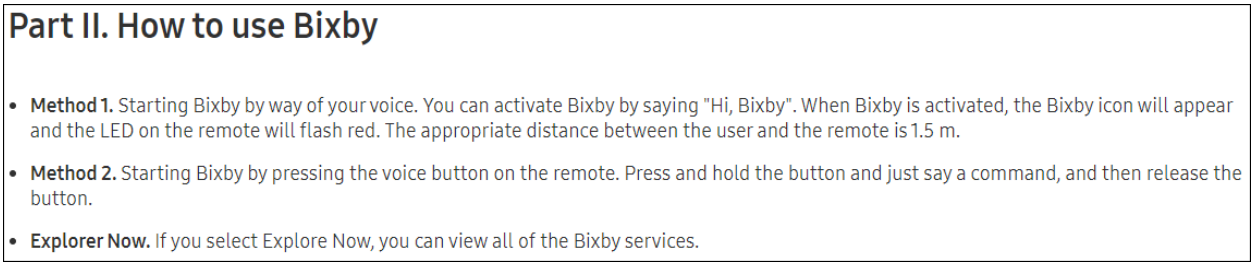


Bixby adds intelligence to Samsung devices connected to the SmartThings platform. Adding Bixby's voice support to a wide range of household products will not only make them easier to use, but will also allow users to speak to Bixby on one device and command it to access and control multiple others.

See, e.g., https://news.samsung.com/global/how-bixby-is-ushering-in-a-more-connected-future. For example, one does not need to train Bixby in order for speech recognition to work and can instead skip that step. *See, e.g.*, https://verizon.com/support/knowledge-base-213215/.

61. In Providing the SmartThings Accused Products in conjunction with Bixby, Samsung provides a voice enabled device operatively connected to said computer, said voice enabled device configured to receive speech commands from user. For example, the "Bixby's voice support…will also allow users to speak to Bixby on one device and command it to access

and control multiple others." *Id*. Further, the SmartThings Accused Products in conjunction with Bixby include a voice enable device configured to receive speech commands from the user.



Part II. How to use Bixby

- **Method 1.** Starting Bixby by way of your voice. You can activate Bixby by saying "Hi, Bixby". When Bixby is activated, the Bixby icon will appear and the LED on the remote will flash red. The appropriate distance between the user and the remote is 1.5 m.
- **Method 2.** Starting Bixby by pressing the voice button on the remote. Press and hold the button and just say a command, and then release the button.
- **Explorer Now.** If you select Explore Now, you can view all of the Bixby services.

See, e.g., https://www.samsung.com/levant/support/tv-audio-video/how-to-use-bixby-on-a-samsung-smart-tv/.

62. In providing the SmartThings Accused Products in conjunction with Bixby, Samsung provides at least one instruction set stored in a database operatively connected to the computer, where the instruction set includes at least one internet address that identifies the location of at least one remote system. In the SmartThings Accused Products, the at least one remote system is configured to execute at least one pre-selected function. For example, when a user utters a speech command to check the humidity of the air conditioner, the SmartThings Accused Products in conjunction with Bixby accesses the check the humidity instruction set which identifies the internet address of the air conditioner, which is at least one remote system. Further, the at least one remote system is configured to execute the pre-selected function of checking the relative humidity of the air conditioner.

63. On information and belief, Bixby's instruction sets are stored in a database. For example, on the SmartThings Developer's page, Samsung shows a number of instruction sets available to control remote devices that are connected to the network including the following highlighted instruction sets that control the air conditioner.

```
### Check status
|Bixby Commands|Examples|Capabilities|
|--- |--- |--- |
|Check the humidity information in the [device name]/[device type]|"Check the
humidity in the air conditioner"|[Relative Humidity Measurement]
(https://smartthings.developer.samsung.com/docs/api-
ref/capabilities.html#Relative-Humidity-Measurement)|
|Check the temperature setting of the [device name]/[device type]|"Check the
temperature setting of the air conditioner"|[Thermostat Cooling Setpoint]
(https://smartthings.developer.samsung.com/docs/api-
ref/capabilities.html#Thermostat-Cooling-Setpoint)|
|Check the indoor temperature of the [device name]/[device type]|"Check the
indoor temperature of the air conditioner"|[Thermostat Cooling Setpoint]
(https://smartthings.developer.samsung.com/docs/api-
ref/capabilities.html#Thermostat-Cooling-Setpoint), [Temperature Measurement]
(https://smartthings.developer.samsung.com/docs/api-
ref/capabilities.html#Temperature-Measurement)|
|Check the fan speed of the [device name]/[device type]|"Check the fan speed of
the air conditioner"|[Fan Speed]
(https://smartthings.developer.samsung.com/docs/api-ref/capabilities.html#Fan-
Speed)|
```

See, e.g., https://developer-preview.smartthings.com/docs/advanced/working-with-bixby.com.

64. In providing the SmartThings Accused Products in conjunction with Bixby, Samsung provides a speech command to the speaker-independent speech recognition engine that corresponds to the instruction set. For example, when a user states a speech command, such as the "Relative Humidity Measurement" command, Samsung provides that speech command to the speaker-independent speech recognition engine, and the speech command corresponds to the "Relative Humidity Measurement" instruction set, as shown in the sources cited above.

65. Further, the speaker-independent speech recognition engine in the SmartThings Accused Products in conjunction with Bixby assigns said speech command to a recognition grammar, said speech command and said recognition grammar corresponding to said instruction set. For example, the speaker-independent speech recognition engine in the SmartThings

Accused Products in conjunction with Bixby assigns the "Relative Humidity Measurement" command to the "Relative Humidity Measurement" grammar:

```
### Check status
|Bixby Commands|Examples|Capabilities|
|--- |--- |--- |
|Check the humidity information in the [device name]/[device type]|"Check the humidity in the air conditioner"|[Relative Humidity Measurement](https://smartthings.developer.samsung.com/docs/api-ref/capabilities.html#Relative-Humidity-Measurement)|
|Check the temperature setting of the [device name]/[device type]|"Check the temperature setting of the air conditioner"|[Thermostat Cooling Setpoint](https://smartthings.developer.samsung.com/docs/api-ref/capabilities.html#Thermostat-Cooling-Setpoint)|
|Check the indoor temperature of the [device name]/[device type]|"Check the indoor temperature of the air conditioner"|[Thermostat Cooling Setpoint](https://smartthings.developer.samsung.com/docs/api-ref/capabilities.html#Thermostat-Cooling-Setpoint), [Temperature Measurement](https://smartthings.developer.samsung.com/docs/api-ref/capabilities.html#Temperature-Measurement)|
|Check the fan speed of the [device name]/[device type]|"Check the fan speed of the air conditioner"|[Fan Speed](https://smartthings.developer.samsung.com/docs/api-ref/capabilities.html#Fan-Speed)|
```

See, e.g., https://developer-preview.smartthings.com/docs/advanced/working-with-bixby.com.

The "Relative Humidity Measurement" grammar corresponds to the "Relative Humidity Measurement" instruction set:

```
### Check status
|Bixby Commands|Examples|Capabilities|
|--- |--- |--- |
|Check the humidity information in the [device name]/[device type]|"Check the
humidity in the air conditioner"|[Relative Humidity Measurement]
(https://smartthings.developer.samsung.com/docs/api-
ref/capabilities.html#Relative-Humidity-Measurement)|
|Check the temperature setting of the [device name]/[device type]|"Check the
temperature setting of the air conditioner"|[Thermostat Cooling Setpoint]
(https://smartthings.developer.samsung.com/docs/api-
ref/capabilities.html#Thermostat-Cooling-Setpoint)|
|Check the indoor temperature of the [device name]/[device type]|"Check the
indoor temperature of the air conditioner"|[Thermostat Cooling Setpoint]
(https://smartthings.developer.samsung.com/docs/api-
ref/capabilities.html#Thermostat-Cooling-Setpoint), [Temperature Measurement]
(https://smartthings.developer.samsung.com/docs/api-
ref/capabilities.html#Temperature-Measurement)|
|Check the fan speed of the [device name]/[device type]|"Check the fan speed of
the air conditioner"|[Fan Speed]
(https://smartthings.developer.samsung.com/docs/api-ref/capabilities.html#Fan-
Speed)|
```

See, e.g., https://developer-preview.smartthings.com/docs/advanced/working-with-bixby.com.

66. In providing the SmartThings Accused Products in conjunction with Bixby, Samsung transmits the speech command to the speaker-independent speech recognition engine. For example, when a user states a speech command, Samsung provides that speech command to the speaker-independent speech recognition engine, and the speech commands correspond to some instruction set such as the instruction set for the "Relative Humidity Measurement" as discussed above. *See, e.g.*, https://developer-preview.smartthings.com/docs/advanced/working-with-bixby.com.

67. The speaker-independent speech recognition engine in the SmartThings Accused Products in conjunction with Bixby receives the speech command and selects the corresponding recognition grammar upon receiving the speech command. Further, the computer in the SmartThings Accused Products in conjunction with Bixby retrieves the instruction set

corresponding to the recognition grammar selected by the speaker-independent speech recognition engine. *See, e.g.*, https://developer-preview.smartthings.com/docs/advanced/working-with-bixby.com.

68. The computer in the SmartThings Accused Products in conjunction with Bixby accesses the at least one remote system identified by the instruction set, such as the air conditioner, to prompt the at least one remote system to execute at least one preselected function, such as checking the humidity in the air conditioner. The at least one remote system in the SmartThings Accused Products in conjunction with Bixby executes the at least one pre-selected function, as discussed above. *See, e.g.*, https://developer-preview.smartthings.com/docs/advanced/working-with-bixby.com.

69. Parus has been damaged by the infringement of the claims of the '455 Patent by Samsung. Parus is entitled to recover from Samsung the damages sustained by Parus as a result of Samsung's wrongful acts.

COUNT III

SAMSUNG'S INFRINGEMENT OF U.S. PATENT NO. 8,185,402

70. Parus restates and incorporates by reference all of the allegations made in the preceding paragraphs as though fully set forth herein.

71. Parus is the owner, by assignment, of the '402 Patent. A true copy of the '402 Patent granted by the U.S. Patent & Trademark Office is attached as Exhibit 3.

72. Samsung has directly infringed, and continues to directly infringe, literally or under the doctrine of equivalents, at least independent claim 1 of Parus's '402 Patent by making, using, selling, and/or offering for sale its smartphone products implementing the Google Android

operating system, including Google Assistant, in the United States, in violation of 35 U.S.C. § 271(a).

73. Upon filing of the complaint or shortly thereafter, Samsung has knowledge of the '402 Patent.

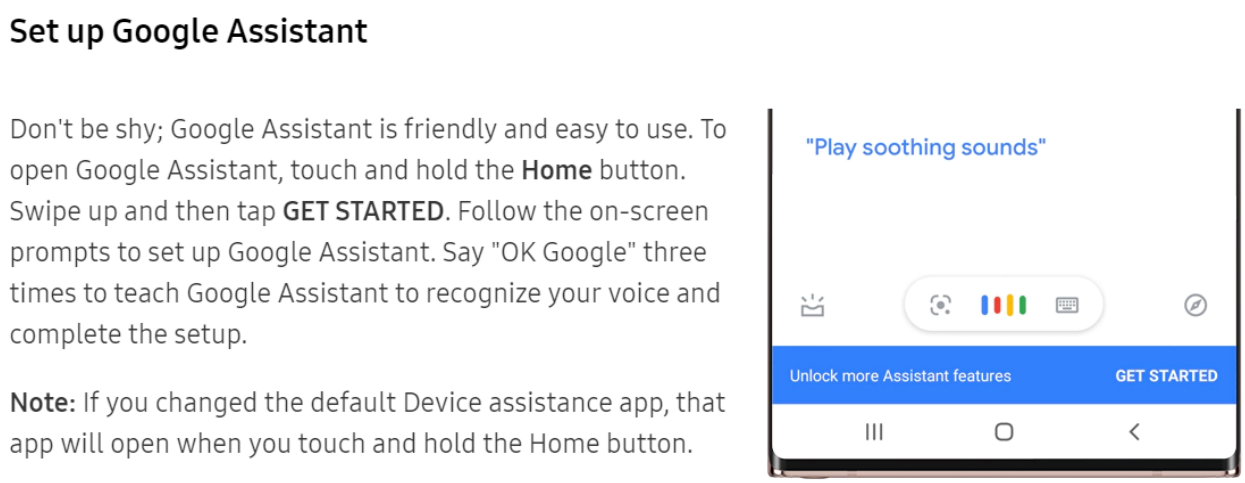
74. Various Samsung products with Google Assistant and/or Samsung Bixby made or sold by Samsung directly infringe at least independent claim 1 of the '402 Patent. Those Samsung products include at least the Samsung Galaxy Note 9 and other Samsung products that incorporate the Google Assistant and/or Samsung Bixby ("Samsung Accused Products").

75. The Samsung Accused Products in conjunction with Google Assistant and/or Samsung Bixby is a system for acquiring information from one or more sources maintaining a listing of web sites by receiving speech commands uttered by users into a voice-enabled device and for providing information retrieved from the web sites to the users in an audio form via the voice-enabled device.

76. The Samsung Accused Products in conjunction with Google Assistant perform a method retrieving information from web sites by uttering speech commands into a voice enabled device and for providing to users retrieved information in an audio form via said voice enabled device. The following exemplary documents provide support to demonstrate how the Samsung Accused Products in conjunction with Google Assistant practice at least claim 1 of the '402 Patent: Andrew Nusca, *How voice recognition will change the world* (Nov. 4, 2011), *available at* https://www.zdnet.com/article/how-voice-recognition-will-change-the-world/, Gene Munster, Will Thompson, *Annual Digital Assistant IQ Test – Siri, Google Assistant, Alexa, Cortana* (Jul. 25, 2018), *available at* https://loupventures.com/annual-digital-assistant-iq-test-siri -google-assistant-alexa-cortana/, Extending the assistant (Jan. 29, 2019), *available at*

https://developers.google.com/actions/extending-the-assistant, Voice Browsing (Jan. 29, 2019), *available at* https://www.w3.org/standards/webofdevices/voice, How Search organizes information (Jan. 29, 2019), *available at* https://www.google.com/search/howsearchworks/crawling-indexing/.

77. Google Assistant and/or Samsung Bixby is built-in the Samsung Accused Products including the Samsung Galaxy Note 9. *See, e.g.*, https://www.samsung.com/us/mobile/galaxy-note9/specs/; https://support.google.com/pixelphone/answer/7157629?hl=en. Samsung provides technical support for the Google Assistant on its websites instructing users, for example, how to use Google Assistant on a voice-enabled device in such a manner that infringes the asserted patents. *See, e.g.*, https://www.samsung.com/us/support/answer/ANS00077672/.

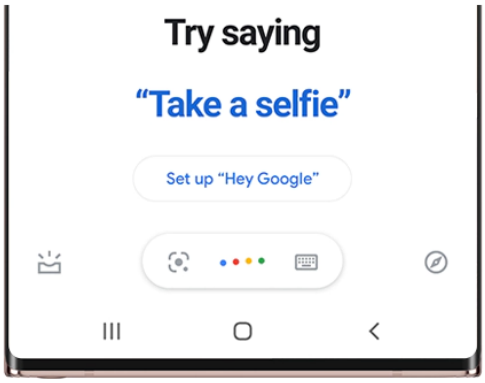


See, e.g., https://www.samsung.com/us/support/answer/ANS00077672/.

Use Google Assistant

Now that the ice has been broken, Google Assistant will help you whenever you want. To open Google Assistant, touch and hold **Home**. Google Assistant will begin listening to you right away.

But if needed, you can tap the **Speak** icon to interact with Google Assistant. Ask "What can you do?"and then swipe down to see a list of things Google Assistant can help with, like adjusting your smart home features.



See, e.g., https://www.samsung.com/us/support/answer/ANS00077672/.

78. Google Assistant on the Samsung Accused Products retrieves information from websites that have already been crawled by the Googlebot.

> **Googlebot**
>
> Googlebot is Google's web crawling bot (sometimes also called a "spider"). **Crawling** is the process by which Googlebot discovers new and updated pages to be added to the Google index.
>
> We use a huge set of computers to fetch (or "crawl") billions of pages on the web. Googlebot uses an algorithmic process: computer programs determine which sites to crawl, how often, and how many pages to fetch from each site.

See, e.g., https://support.google.com/webmasters/answer/182072.

> The crawling process begins with a list of web addresses from past crawls and sitemaps provided by website owners. As our crawlers visit these websites, they use links on those sites to discover other pages. The software pays special attention to new sites, changes to existing sites and dead links. Computer programs determine which sites to crawl, how often and how many pages to fetch from each site.

See, e.g., https://www.google.com/search/howsearchworks/crawling-indexing/.

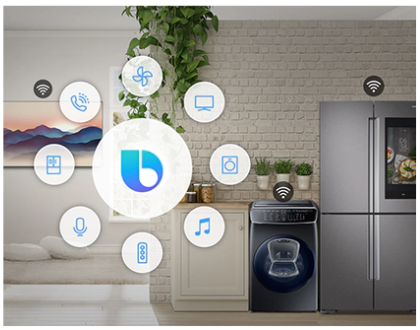
> Like Siri, you can ask Google Assistant general questions. Unlike Siri, you'll likely find that Google can handle a wider range of questions than Siri can. That's because Google Assistant taps into Google's web-wide search results each and every time you search, making it more comprehensive.

See, e.g., https://searchengineland.com/google-assistant-guide-270312.

79. Similarly, Samsung provides technical support for Bixby on its websites instructing users, for example, how to use Bixby on a voice-enabled device in such a manner that infringes the asserted patents. *See, e.g.*, https://www.samsung.com/us/support/answer/ANS00080453/ ("Interact with Bixby through voice or text"); https://www.samsung.com/us/support/answer/ANS00080454/ ("Frequently Asked Questions About Bixby").

Why Bixby should be your default AI assistant

As amazing as Google Assistant and the other AI assistants are, **Bixby** is the only one that can access Samsung-exclusive services. For example, Bixby can control your devices in SmartThings and even **make purchases in Samsung Pay**. It can connect to your **Spotify account** to make finding songs easier.

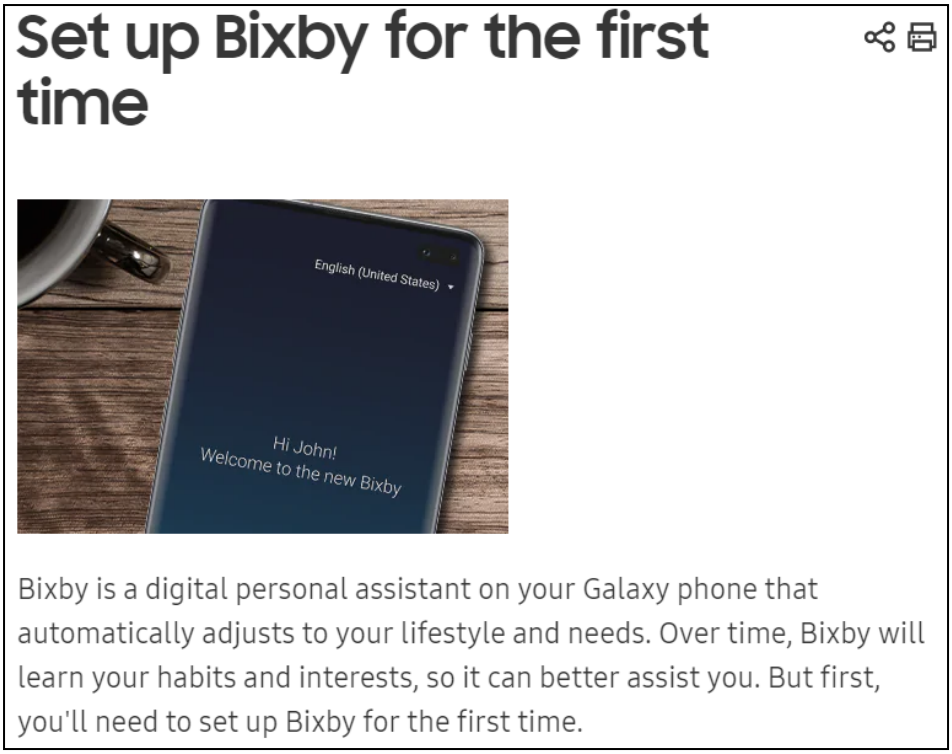


And don't forget Bixby's key functions. **Bixby Reminders** helps you stay on track of your schedule. There's also **Bixby Vision** for browsing, shopping, and doing so much more.

Even if the other AI assistants have some similar features, they aren't integrated with your phone the same way Bixby is.

See, e.g., https://www.samsung.com/us/support/answer/ANS00077672/.

80. Some of the Samsung Accused Products utilize the virtual assistant Bixby. For example, the Samsung Galaxy Note 9 comes with Bixby pre-loaded. *See e.g.,* https://www.samsung.com/us/mobile/galaxy-note9/specs/. Samsung also includes a page that gives instructions for setting up and using Samsung Bixby.



See, e.g., https://www.samsung.com/us/support/answer/ANS00076739/.

81. Bixby operates in a manner similar to Google Assistant. Analysis of Bixby will not be duplicated where the analysis of Google Assistant appears.

82. In providing the Samsung Accused Products in conjunction with Google Assistant, Samsung provides a computer operatively connected to the internet, and further operatively connected to at least one speaker-independent speech recognition engine and at least one speech synthesis engine.

83. For example, the Samsung Accused Products in conjunction with Google Assistant include at least one computer. *See, e.g.*, https://www.samsung.com/us/mobile/galaxy-note9/specs/.

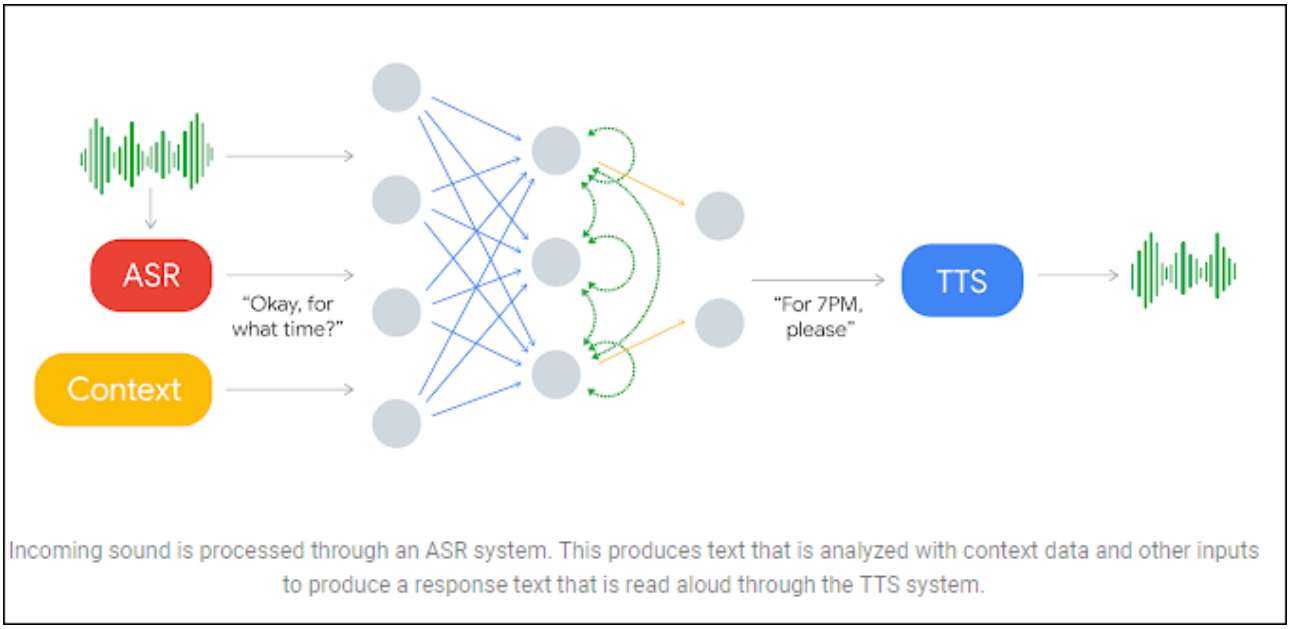
84. Google Assistant is built-in to the Samsung Accused Products, including the Samsung Galaxy Note 9 and includes the hardware and software to accept audio inputs and

create audio outputs. For example, the Samsung Galaxy Note 9 includes a microphone. *See, e.g.*, https://samsung.com/global/galaxy-note9/specs/.

85. In providing the Samsung Accused Products in conjunction with Google Assistant, Samsung provides a voice-enabled device operatively connected to a computer that is configured to receive speech commands from users, as discussed above.

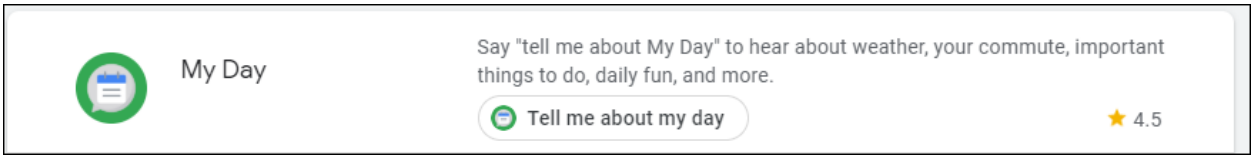
86. In providing the Samsung Accused Products in conjunction with Google Assistant, Samsung provides a speech command to the speaker-independent speech recognition engine. For example, when a user states a speech command, Google provides that speech command to the speaker-independent speech recognition engine as shown in the sources cited above. *See also* https://assistant.google.com/platforms/phones.

87. The computer in the Samsung Accused Products in conjunction with Google Assistant accesses at least one of a plurality of web sites associated with said speech command to obtain an information to be retrieved. The computer first accesses the first web site of the plurality of web sites and, if the information to be retrieved is not found at the first web site, the computer sequentially accesses the plurality of web sites until the information to be retrieved is found or until the plurality of web sites has been accessed. *See, e.g.*, https://cognitiveseo.com/blog/17398/google-answer-box; https://developers.google.com/search/docs/beginner/how-search-works (discussing "serving results" by "search[ing] the index for matching pages and return[ing] the results we believe are the most relevant to the user"); https://www.google.com/search/howsearchworks/responses.



See, e.g., https://ai.googleblog.com/2018/05/duplex-ai-system-for-natural-conversation.html.

88. The speech synthesis engine in the Samsung Accused Products in conjunction with Google Assistant produces an audio message containing any retrieved information from the pre-selected web sites. *See, e.g.*, https://assistant.google.com/platforms/phones; *see also*, https://ai.googleblog.com/2018/05/duplex-ai-system-for-natural-conversation.html. The Samsung Accused Products in conjunction with Google Assistant includes the speech synthesis device configured to produce an audio message containing any retrieved information from said web sites.



See, e.g., https://assistant.google.com/explore?hl=en_us; *see also* https://assistant.google.com/platforms/phones.

89. The speech synthesis engine in the Samsung Accused Products in conjunction with Google Assistant transmits the audio message to users via the voice enabled device, as discussed above.

90. Parus has been damaged by the infringement of the claims of the '402 Patent by Samsung. Parus is entitled to recover from Samsung the damages sustained by Parus as a result of Samsung's wrongful acts.

PRAYER FOR RELIEF

WHEREFORE, Parus request the Court grant the relief set forth below:

A. Enter judgment that Defendants have infringed, and continue to infringe, one or more claims of the '705 Patent, the '455 Patent, and/or the '402 Patent;

B. Enter judgment that Defendants' acts of patent infringement are willful post-filing of the Complaint;

C. Temporarily, preliminarily, or permanently enjoin Defendants, their parents, subsidiaries, affiliates, divisions, officers, agents, servants, employees, directors, partners, representatives, all individuals and entities in active concert and/or participation with them, and all individuals and/or entities within their control from engaging in the aforesaid unlawful acts of patent infringement;

D. Order Defendants to account for and pay damages caused to Parus by Defendants' unlawful acts of patent infringement;

E. Award Parus increased damages and attorney fees pursuant to 35 U.S.C. §§ 284 and 285;

F. Award Parus the interest and costs incurred in this action; and

G. Grant Parus such other and further relief, including equitable relief, as the Court deems just and proper.

DEMAND FOR JURY TRIAL

Plaintiff demands a jury trial for all issues deemed to be triable by a jury.

Dated: October 15, 2021

Respectfully submitted,

/s/ *Michael N. McNamara w/permission Claire Abernathy Henry*
Michael T. Renaud
Massachusetts BBO No. 629783
MTRenaud@mintz.com
Michael N. McNamara
Massachusetts BBO No. 665885
MMcNamara@mintz.com
Kristina R. Cary
Massachusetts BBO No. 688759
KRCary@mintz.com
Tiffany Knapp
Massachusetts BBO No. 694070
TKnapp@mintz.com
MINTZ LEVIN COHN FERRIS GLOVSKY AND POPEO PC
One Financial Center
Boston, MA 02111
Tel: (617) 542-6000
Fax: (617) 542-2241
www.mintz.com

Of Counsel:

T. John Ward, Jr.
Texas State Bar No. 00794818
E-mail: jw@wsfirm.com
Andrea L. Fair
Texas State Bar No. 24078488
E-mail: andrea@wsfirm.com
Claire Abernathy Henry
Texas State Bar No. 24053063
Email: claire@wsfirm.com

Charles Everingham IV
Texas State Bar No. 00787447
Email: ce@wsfirm.com
WARD, SMITH & HILL, PLLC
1507 Bill Owens Parkway
Longview, Texas 75604
(903) 757-6400 (telephone)
(903) 757-2323 (facsimile)

Counsel for Plaintiff Parus Holdings Inc.